# HEATING, VENTELATION & AIR CONDITIONING (HVAC) TECHNICIAN

#### **DEFINITION**

To perform skilled and responsible installation, maintenance and repair on heating, ventilating and air conditioning systems in City facilities and buildings and related structures; and to perform related work as assigned.

## DISTINGUISHING CHARACTERISTICS

This is the full journey level class within the Heating, Ventilation and Air Conditioning Technician series and has the ability to perform the full range of duties assigned with only occasional instruction or assistance as unique situations arise. This class is distinguished from the Senior Heating, Ventilation and Air Conditioning Technician in that the latter performs advanced journey level work and/or provides technical and functional guidance over assigned staff.

## SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from an assigned supervisor.

May exercise technical and functional guidance over less experienced staff.

<u>ESSENTIAL FUNCTIONS</u> – Functions may include, but are not limited to, the following:

Install, service, maintain, repair and rebuild refrigeration, air conditioning systems, duct systems, and ventilating exhaust systems and heating equipment; troubleshoot operating problems.

Oils, cleans, adjust, overhauls, and repairs motors, condensers, compressors, oil and vacuum pumps, and all related electronic, pneumatic, and electrical controls.

Detects and repair leaks in pipes and valves; dissembles parts such as valves, springs, brushes, and connectors to note their condition.

Perform inspections on air conditioning and refrigeration systems.

Perform preventive maintenance procedures.

Perform and interpret chemical tests.

Assist in planning, designing, lay out and performing craft assignments.

Read and interpret plans, blueprints, schematics and specifications.

Estimate materials, tools and equipment needed for work assignments.

Order and pick up materials and supplies from outside vendors as appropriate.

Operate and maintain a wide variety of hand and power tools, shop tools and other equipment used in the trade.

Observe safe work methods and safety precautions related to the work; cones and flags work sites to secure from traffic; uses appropriate safety equipment and devices; attends safety meetings; inspects and repairs safety hazards encountered in the course of the work.

May assist less experience assistants in craft work; instruct and train assistants in proper work methods and job safety..

Assist in developing specifications for contract work; may inspect contract work for conformity to specifications; may recommend remedial work as necessary.

Keep work related records using a computer.

Operate City vehicle and equipment skillfully and safely.

Respond to questions or complaints from the public.

In the absence of a supervisor, assume responsibilities as needed.

Build and maintain positive working relationships with co-workers, other City employees and the public using principles of good customer services.

Perform other related duties as assigned.

## MINIMUM QUALIFICATIONS

## Knowledge of:

Methods, tools and equipment used in the maintenance and repair of heating, ventilating and air conditioning systems of large buildings.

Electronic and pneumatic control systems.

Operation and maintenance of a wide variety of hand, power and shop tools, test equipment and other equipment common to the field of HVAC and related building trades.

Pertinent rules, laws, codes and policies related to area of assignment.

Safe work methods and safety regulations pertaining to the work, including the use of personal protective equipment.

Computer equipment and software applications related to assignment.

English usage, spelling, grammar, and punctuation.

## Ability to:

Operate and maintain specialized tools used in HVAC and related building trades.

Design, lay out and prepare sketches and plans for related assignments

Understanding and following oral and written instructions.

Estimating necessary materials and equipment to complete assignments.

Reading and interpreting manuals, specifications, drawings, plans and blueprints.

Basic mathematical computations.

Use and operate tools and equipment related to assignment, including personal protective equipment.

Keep work related records and prepare reports using a computer.

Work effectively at remote locations without direct supervision.

Operate City vehicles observing legal and defensive driving practices.

Follow oral instruction; read, interpret, follow and explain written instructions, construction sketches and equipment manuals.

Use initiative and sound independent judgment within established guidelines.

Communicate clearly and concisely, both orally and in writing.

Work overtime and off-hours shifts when necessary because of an emergency or in the interest of the efficiency of the department.

In the absence of a supervisor, assume responsibilities as needed.

Establish and maintain effective working relationships with those contacted in the course of work.

Work with various cultural and ethnic groups in a tactful and effective manner.

## **Experience and Training**

Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

## Experience:

Three year of responsible experience in the maintenance and repair work of heating, ventilation, air conditioning systems.

# **Training:**

Equivalent to the completion of the twelfth grade supplemented by specialized training in HVAC or a related field.

## License or Certificate

Possession of a valid California driver's license.

Possession of, or ability to obtain a current Environmental Protection Agency (EPA) Type II and III or a Universal Technician Certificate.

## PHYSICAL DEMANDS

On a continuous basis, sit, stand, bend, climb ladders (up to 40 feet), stoop, kneel, crouch, crawl and twist for varying periods in the course of work; use hands and fingers to grasp tools; make repetitive hand and body motions; twist and reach below and above shoulder; lift or carry objects weighing up to 100 pounds; to communicate with co-workers using a two-way radio; use telephone, and write or use a keyboard to communicate through written means; see in the normal vision range with or without correction to read computer screen, blueprints, and drafting plans; hear in the normal range with or without correction.

#### WORK ENVIRONMENT

## CITY OF CHULA VISTA HVAC Technician

Work is performed both indoors and outdoors environments. Some work is performed with exposure to low to loud noise level; frequent fieldwork is required with exposure to a variety of weather conditions and the external environment; tasks may require working in tightly enclosed spaces and the use of ladders or other safety equipment to gain access to hard to reach locations; some work is performed in crawl spaces, attics or on rooftops. Some work may require exposure to unpleasant and potentially hazardous substances and high voltage.

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